

Name: _____

Date: _____

FOIL when $A \neq 1$ SLTN (version 103)

FOIL the expressions shown below:

1. $(-3x - 2)(5x + 7)$

$$\begin{aligned} &(-3)(5)x^2 + (-3)(7)x + (-2)(5)x + (-2)(7) \\ &(-15)x^2 + (-21)x + (-10)x + (-14) \\ &-15x^2 - 31x - 14 \end{aligned}$$

2. $(4x + 2)(6x + 5)$

$$\begin{aligned} &(4)(6)x^2 + (4)(5)x + (2)(6)x + (2)(5) \\ &(24)x^2 + (20)x + (12)x + (10) \\ &24x^2 + 32x + 10 \end{aligned}$$

3. $(8x - 8)(9x - 5)$

$$\begin{aligned} &(8)(9)x^2 + (8)(-5)x + (-8)(9)x + (-8)(-5) \\ &(72)x^2 + (-40)x + (-72)x + (40) \\ &72x^2 - 112x + 40 \end{aligned}$$

4. $(-2x + 8)(5x + 9)$

$$\begin{aligned} &(-2)(5)x^2 + (-2)(9)x + (8)(5)x + (8)(9) \\ &(-10)x^2 + (-18)x + (40)x + (72) \\ &-10x^2 + 22x + 72 \end{aligned}$$

5. $(-5x + 5)(9x - 8)$

$$\begin{aligned} &(-5)(9)x^2 + (-5)(-8)x + (5)(9)x + (5)(-8) \\ &(-45)x^2 + (40)x + (45)x + (-40) \\ &-45x^2 + 85x - 40 \end{aligned}$$

FOIL the expressions shown below:

6. $(7x + 8)(-8x + 9)$

$$\begin{aligned} & (7)(-8)x^2 + (7)(9)x + (8)(-8)x + (8)(9) \\ & (-56)x^2 + (63)x + (-64)x + (72) \\ & -56x^2 - x + 72 \end{aligned}$$

7. $(-3x - 2)(-3x - 4)$

$$\begin{aligned} & (-3)(-3)x^2 + (-3)(-4)x + (-2)(-3)x + (-2)(-4) \\ & (9)x^2 + (12)x + (6)x + (8) \\ & 9x^2 + 18x + 8 \end{aligned}$$

8. $(9x - 9)(-5x - 8)$

$$\begin{aligned} & (9)(-5)x^2 + (9)(-8)x + (-9)(-5)x + (-9)(-8) \\ & (-45)x^2 + (-72)x + (45)x + (72) \\ & -45x^2 - 27x + 72 \end{aligned}$$

9. $(-6x - 3)(4x - 4)$

$$\begin{aligned} & (-6)(4)x^2 + (-6)(-4)x + (-3)(4)x + (-3)(-4) \\ & (-24)x^2 + (24)x + (-12)x + (12) \\ & -24x^2 + 12x + 12 \end{aligned}$$

10. $(-7x - 8)(-3x + 3)$

$$\begin{aligned} & (-7)(-3)x^2 + (-7)(3)x + (-8)(-3)x + (-8)(3) \\ & (21)x^2 + (-21)x + (24)x + (-24) \\ & 21x^2 + 3x - 24 \end{aligned}$$